

optical cards, solid-state memory devices, or other types of medium/machine-readable medium suitable for storing electronic instructions.

**[0127]** As used herein, a software module or component may include any type of computer instruction or computer executable code located within a memory device and/or computer-readable storage medium. A software module may, for instance, comprise one or more physical or logical blocks of computer instructions, which may be organized as a routine, program, object, component, data structure, etc., that performs one or more tasks or implements particular abstract data types.

**[0128]** In certain embodiments, a particular software module may comprise disparate instructions stored in different locations of a memory device, which together implement the described functionality of the module. Indeed, a module may comprise a single instruction or many instructions, and may be distributed over several different code segments, among different programs, and across several memory devices. Some embodiments may be practiced in a distributed computing environment where tasks are performed by a remote processing device linked through a communications network. In a distributed computing environment, software modules may be located in local and/or remote memory storage devices. In addition, data being tied or rendered together in a database record may be resident in the same memory device, or across several memory devices, and may be linked together in fields of a record in a database across a network.

**[0129]** It will be obvious to those having skill in the art that many changes may be made to the details of the above-described embodiments without departing from the underlying principles of the invention. The scope of the present invention should, therefore, be determined only by the following claims.

What is claimed is:

1. A method for shaping a load profile of a building, comprising:
  - identifying a plurality of core hours of a time period;
  - increasing a load of the building, a plurality of different increase instances, by interfacing with a building automation system (BAS) and an energy storage system (ESS) during the plurality of core hours; and
  - decreasing the load of the building, a plurality of different decrease instances, by interfacing with the BAS and the ESS during the plurality of core hours,
 wherein each increase instance from the plurality of different increase instances of the load profile is followed by a decrease instance from the plurality of decrease instances of the load profile.
2. The method of claim 1, wherein the load profile comprises two or more peaks during the core hours.
3. The method of claim 2, wherein each of the two or more peaks of the load profile is defined by the intersection of an increase instance and a decrease instance of the load profile.
4. The method of claim 2, wherein each of the two or more peaks of the load profile comprises an increase instance from the plurality of different increase instances followed by a decrease instance from the plurality of different decrease instances.
5. The method as in claim 1, 2, 3, or 4, wherein the method further comprises determining a shelf level of a storage device coupled to the ESS, wherein the shelf level defines a

point in the load profile at which the storage device discharges to support the load of the building.

6. A computer-readable storage medium having stored thereon instructions that, when implemented by a computing device, cause the computing device to:

- generate a forecast load profile of a building with a forecast peak, wherein the forecast load profile maintains a plurality of building parameters within a set range;

- generate a load profile, of the building, with two or more peaks by implementing one or more of a plurality of conditions that perform a plurality of operations on data associated with at least one of the forecast peak and the two or more peaks and wherein the load profile also maintains the plurality of building parameters within the set range; and

- configure a plurality of building devices to correspond with the load profile.

7. The computer-readable storage medium of claim 6, wherein the plurality of operations include minimizing an energy used in the load profile at a point corresponding to a forecast peak point of the forecast peak.

8. The computer-readable storage medium as in claim 6 or 7, wherein the plurality of operations include minimizing the width of the two or more peaks.

9. The computer-readable storage medium of claim 8, wherein the plurality of operations include maximizing a result of subtracting a forecast dispatch potential of the forecast load profile from a difference between a dispatch potential of the load profile and a recharge potential of the load profile minus.

10. The computer-readable storage medium of claim 9, wherein the plurality of operations include determining that a total energy used in the load profile is less than a forecast total energy used in the forecast load profile.

11. A load shaper device for shaping a load profile, comprising:

- memory configured to store a first forecast load profile and a second forecast load profile;

- at one or more processing units configured to:

- generate the first forecast load profile of a building with a forecast peak, wherein the forecast load profile maintains a plurality of building parameters within a set range;

- generate the second forecast load profile of the building with two or more peaks by implementing one or more of a plurality of conditions that perform a plurality of operations on data associated with at least one of the forecast peak and the two or more peaks and wherein the second forecast load profile also maintains the plurality of building parameters within the set range;

- compare the first forecast load profile and the second forecast load profile; and

- configure a plurality of building devices to correspond with at least one of the first forecast load profile and the second forecast load profile based on the comparison of the first forecast load profile and the second forecast load profile.

12. The load shaper device of claim 11, wherein the one or more processing units are configured to:

- configure the plurality of building devices to correspond with the first forecast load profile based on a determination that: